

Amendment to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1. (Canceled).
2. (Currently amended): The method of claim 1-6 wherein the third location is not between the first and second locations.
3. (Original): The method of claim 2 wherein the ignited fuze actuates the first sensor before it actuates the second sensor.
4. (Original): The method of claim 3 wherein each sensor comprises an electrical conductor that contacts the fuze only after the fuze expands from detonation at the sensor.
5. (Original): The method of claim 4 further comprising an electrical circuit connected to each conductor, wherein actuation of each sensor causes a voltage change in the electrical circuit connected to that sensor.
6. (Currently amended): The method of claim 1-A method of determining velocity of detonation of a metal-clad explosive fuze that expands in diameter as it detonates along its length, comprising:
 - placing a sensor spaced from and adjacent a first location on the fuze;
 - placing a second sensor spaced from and adjacent a second location on the fuze;

igniting the fuze at a third location on the fuze, wherein the fuze detonates along its length past the first and second locations, the expanded fuze being detected by each sensor as the fuze detonates at that sensor's location; and

determining the velocity of detonation from the time difference between the actuation of each sensor.

_____ wherein the sensors are mounted on an apparatus and the fuze is in a groove on a device, wherein the placing steps comprise:

holding the apparatus against the device in a fixed position with the first and second sensors vertically aligned with the respective first and second locations;

moving each sensor toward the fuze until it contacts the fuze; and

moving each sensor to a sensing position that does not contact the fuze before detonation, and that will be contacted by the detonated fuze.

7. (Original): The method of claim 6 wherein each sensor is a screw that extends through a block that covers the first and second locations, and the sensors are moved by screwing them towards and away from the fuze.

8. (Currently amended): An apparatus for measuring the velocity of detonation in a mild detonation fuze extending in a groove on the surface of a device, the device including an igniter at one end of ~~said the~~ fuze, said apparatus comprising:

a first sensor spaced from and adjacent a first location on ~~said the~~ fuze;

a second sensor spaced from and adjacent a second location on ~~said the~~ fuze, ~~said the~~ second location being further along ~~said the~~ fuze from the ignition end than ~~said the~~ first location, ~~said first and second sensors each of said spacers~~ being spaced sufficiently close to ~~said the~~ fuze that detonation at ~~the a~~ sensor location is detected by ~~said the~~ respective sensor;

registration structures operatively arranged to precisely position said first and second sensors with respect to the first and second locations, respectively; and

a timer that is started when said first sensor detects an expanded fuze and is stopped when said second sensor detects an expanded fuze; wherein the velocity of detonation is calculated from time measured by said timer and the known distance between said first and second sensors.

9. (New): The apparatus of claim 8, wherein said first and second sensors are electrical conductors that contact the fuze only after the fuze expands from detonation at the sensor.

10. (New): The apparatus of claim 9, wherein said first and second sensors are screws retrievably extendible and electrically conducting and having tips pointing towards the first and second locations, respectively.

11. (New): A method of determining velocity of detonation of a metal-clad explosive fuze, which expands in diameter as it detonates along its length, the method comprising:

placing a first sensor on a first module, wherein the first sensor is spaced from and adjacent a first location on the fuze, and wherein the fuze is placed on a second module;

placing a second sensor on the first module, wherein the second sensor is spaced from and adjacent a second location on the fuze;

positioning precisely the first and second sensors with respect to the first and second locations, respectively, using registration structures on the first module;

igniting the fuze at a third location on the fuze, wherein the fuze detonates along its length past the first and second locations, the expanded fuze being detected by the first and second sensors as the fuze detonates at that sensor's location; and

determining the velocity of detonation from the time difference between the actuation of the first and second sensors.

12. (New): The method of claim 11 wherein the third location is not between the first and second locations.
13. (New): The method of claim 11 wherein the ignited fuze actuates the first sensor before it actuates the second sensor.
14. (New): The method of claim 11 wherein the first and second sensors are electrical conductors that contact the fuze only after the fuze expands from detonation at the sensor.
15. (New): The method of claim 11 wherein the first and second sensors are screws retrievably extendible and electrically conducting and having tips pointing towards the first and second locations, respectively.